(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 29 December 2005 (29.12.2005)

PCT

(10) International Publication Number WO 2005/122694 A2

(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/IL2005/000649

(22) International Filing Date: 19 June 2005 (19.06.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/580,712 21 June 2004 (21.06.2004) US 60/521,864 14 July 2004 (14.07.2004) US 60/522,262 8 September 2004 (08.09.2004) US 60/593,623 31 January 2005 (31.01.2005) US

(71) Applicant and

(72) Inventor: RAPOPORT, Alex [IL/IL]; Arlozorov 41a, 75214 Rishon Le Zion (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

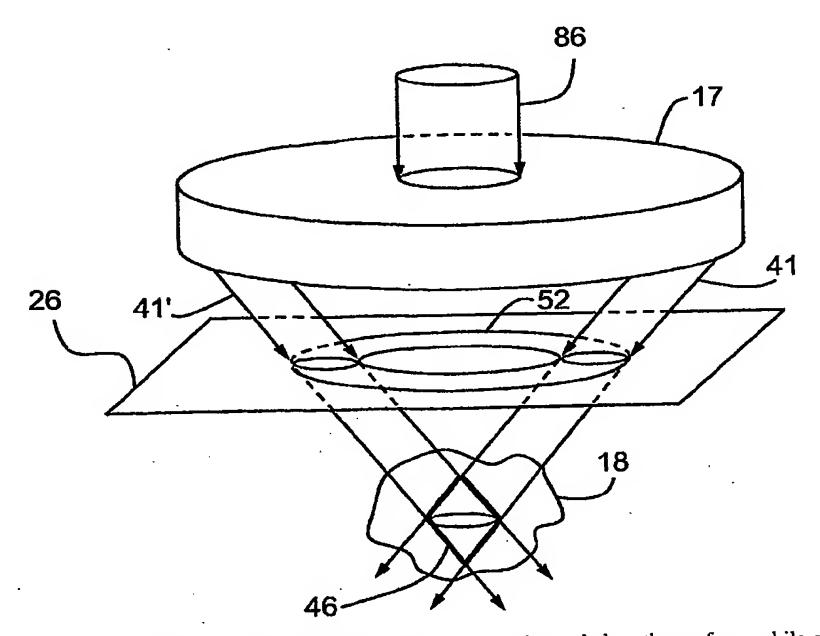
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THERMAL ENERGY APPLICATOR



(57) Abstract: An apparatus and method, for selective thermal treatment of tissue, below the surface, while avoiding injury to the superficial layers of the tissue. The apparatus comprises a reflective beam conversion system for providing a pre-selected therapeutic dose of light energy of optimal spectrum and optimal pulse duration to a confined target volumes at predetermined depth under the tissue surface, while reducing the thermal exposure of the surface of the tissue, and the overlying and surrounding tissues. The method is advantageous for treating a variety of medical and dermatological conditions in a safer and more effective manner.